

OPTICAL DISK STAMPER

Abstract of Disclosure

Optical-disk stamper that prevents mold-release defects caused by mold-release irregularities that occur when the mold is opened while improving transferability during disk molding to enable the manufacture of high-quality optical disks at a favorable yield rate. On one side of a stamper body (1), a molding surface (2) furnished with bumps (3) for imprinting pits into an optical disk is formed. The molding surface, including the bumps, is formed of a polymer resin whose thermal diffusivity is $0.01\text{ m}^2/\text{h}$ or under. More preferably the molding surface is formed of a poorly heat-conducting phenolic resin whose thermal diffusivity is between $0.0004\text{ m}^2/\text{h}$ and $0.001\text{ m}^2/\text{h}$, suppressing heat diffusion from the molten resin toward the stamper during the disk molding process and nullifying rapid cooling and local hardening of the resin.

Figures